ECONOMIC ASSESSMENT OF THE CARILLON CANAL 1984-85

EVALUATION AND ANALYSIS DIVISION
SOCIO-ECONOMIC BRANCH
MAY 1986

SUMMARY

ECONOMIC BENEFITS TO QUEBEC:

Important as it is for recreational purposes, the Carillon Canal also generates significant economic impacts. These impacts result from expenditures made to operate and maintain the canal, as well as purchases made by boaters and land based canal visitors.

By examining the economic impacts of Carillon Canal operating, maintenance and visitor expenditures, we can provide a minimal estimate of the economic repercussions for one year.

Parks expended $310 thousand in 1984-85 to operate and maintain the canal. The 37 thousand land based visits plus the 3.6 thousand boats that passed through the locks, resulted in a conservatively estimated $93 thousand in expenditures for items such as food, transportation, and accommodation. Thus in 1984-85, $403 thousand was expended by Parks and canal visitors.

The economic impacts of these expenditures are summarized in the following table. All results include the direct, indirect, and induced impacts.

Estimated 1984-85 Economic Impact in Quebec of Carillon Canal

Total Person-Years of Employment Generated	17 P.-Y.
Total Labour Income Generated	$346 thousand
Total Gross Domestic Product Generated	$476 thousand
Revenue Generated for Quebec Government	$ 70 thousand
Revenue Generated for all levels of Gov't in Quebec	$171 thousand

NOTE: Results obtained using the Statistics Canada's Interprovincial Input-Output Model.

Employment

Of the 17 person-years generated, 41% (or 6.9) are in the tertiary sector of the economy. This sector is mainly service oriented and thus highly labour intensive. It includes "both" retail and accommodation businesses. Over 3 of the person-years generated were in these two sectors alone indicating the important tourism role the canal plays. The $310 thousand expended by Parks results in a ratio of 1 person-year of employment generated for about every $18.7 thousand expended.

Labour Income

Labour income, which is defined by Statistics Canada as salaries, wages and other supplementary labour income, was estimated at $346 thousand. Thus, for every dollar expended to operate and maintain the canal, $1.10 was generated in the Quebec economy in the form of labour income.

Government Revenue

Expenditures by Parks and visitors result in the generation of revenue for the various levels of government. Revenue is mainly generated as a result of direct and indirect taxes imposed by the governments on goods and services purchased. For the provincial government alone, Parks and visitors expenditures generated nearly $70 thousand in revenue. The federal and municipal governments also received in total about $101 thousand in revenue. Therefore, considering all levels of government in Quebec, $171 thousand in revenue was generated. In other words, for every dollar expended by Parks in 1984-85 on Carillon, 55¢ was returned in the form of government revenue of which 22¢ was returned to the Quebec government alone.

The above estimates must be considered conservative as they do not include estimates of the proportion of equipment purchases by canal visitors that could legitimately be attributable to canal operation. Nor do these figures include the value of the land and businesses that are dependent on canal operation. Estimates of these items require special study. However, a report of the Task Force on Program Review suggested that the overall economic impacts are high. Industries such as boat building and construction are affected by the maintenance of canals. This report also suggests that significant benefits accrue to anyone owning land or facilities along canals. While figures on these benefits have not been developed, they would appear to be even larger than those generated by the $403 thousand in Parks and visitor expenditures.

TABLE OF CONTENTS

	PAGE
SUMMARY	i
TABLE OF CONTENTS	iii
LIST OF TABLES	iv
LIST OF FIGURES	v
INTRODUCTION	vi
CHAPTER I: SPENDING ATTRIBUTABLE TO CARILLON CANAL	1
1.1 Parks Related Expenditures	1
1.2 Visitor Spending	1
1.3 Final Canadian Demand	2
CHAPTER II: IMPACT ON INCOME IN QUEBEC	9
2.1 Labour Income	9
2.2 Gross Domestic Product	9
2.3 Total Income	12
CHAPTER III: IMPACT ON EMPLOYMENT IN QUEBEC	16
3.1 Labour Income and Employment Impact	16
CHAPTER IV: IMPACT ON GOVERNMENT REVENUE	19
CONCLUSION	23

LIST OF TABLES

		PAGE
TABLE 1:	Final Canadian Demand, By Industry Sector	7
TABLE 2:	Final Quebec Demand, By Industry Sector	8
TABLE 3:	Direct, Indirect And Induced Labour Income Generated In Quebec	10
TABLE 4:	Gross Domestic Product At Factor Cost Generated In Quebec, By Industry Sector	11
TABLE 5:	Direct, Indirect And Induced Gross Domestic Product At Factor Cost Generated In Quebec	13
TABLE 6:	Total Income Generated In Quebec	13
TABLE 7:	Person-Years Generated In Quebec By Industry Sector	17
TABLE 8:	Number Of Direct, Indirect And Induced Person-Years Generated In Quebec	17
TABLE 9:	Government Revenue Generated	20

LIST OF FIGURES

		PAGE
FIGURE 1(a)	Visitor Spending Having An Economic Impact	3
FIGURE 1(b)	Final Canadian Demand Attributable To Carillon Canal	4
FIGURE 1(c)	Components Involved In Economic Impact Of Carillon Canal	5
FIGURE 2(a)	Breakdown Of Total Income Generated In Quebec	14
FIGURE 2(b)	Impact On Income In Quebec	15
FIGURE 3(a)	Impact On Income And Employment In Quebec	18
FIGURE 4(a)	Sources Of Government Revenue	21
FIGURE 4(b)	Impact On Income, Employment And Government Revenue In Quebec	22

INTRODUCTION

The purpose of this report is to evaluate the impact on the Quebec economy of Carillon Canal expenditures and visitor spending attributable to the canal facilities. The following results demonstrate that the Canal's economic impact complements Parks mandate "To protect for all time those places which are significant examples of Canada's natural and cultural heritage and also to encourage public understanding, appreciation and enjoyment of this heritage in ways which leave it unimpaired for future generations." (Parks Canada Policy 1983, p. 11).

The impact on the Quebec economy of spending attributable to the Carillon Canal for the 1984-85 fiscal year is estimated by using Statistics Canada's 1979 version of the interprovincial input-output model.[1] This impact is analyzed in terms of employment, labour income, gross domestic product and government revenue. Chapter I examines spending attributable to the canal. It identifies the expenditures injected into the Canadian economy by both Parks (DOE) and visitors using the canal. Chapter II discusses the impact on income in terms of labour income, gross domestic product and total income. Chapter III examines the economic repercussions of the Carillon Canal on employment. Finally, chapter IV discusses how the canal affects government revenue.

---

1 The basic hypothesis and the method employed are not explained in this report. Those interested may refer to Evaluation of the Impact on the Canadian Economy of Spending Attributable to National Heritage Locations Administered by Parks Canada, Volumes I, II, III and IV, Parks Canada, Socio-Economic Division, April 1983.

CHAPTER I

SPENDING ATTRIBUTABLE TO CARILLON CANAL

For the purposes of this study, the impact of the Carillon Canal on the Quebec economy results from 1) government expenditures to operate, maintain, and repair the canal and 2) spending by visitors that is directly attributable to the canal. Government expenditures are obtained from Parks financial records. The estimate of visitor spending, on the other hand, is the end result of applying two successive models. The first model, developed by the Socio-Economic Branch (SEB), uses attendance data; the second is Tourism Canada's Tourism Impact Model (TIM).

The economic impact on the Quebec economy of these expenditures is measured with the aid of the Statistics Canada interprovincial input-output model of the Canadian economy. This model makes it possible to see how demand is generated in the Canadian economy and how it affects income, employment and government revenue in each province.

1.1 Parks Related Expenditures

Financial records to June 30, 1985 show that during the 1984-85 fiscal year, Parks spent some $310 thousand on the Carillon Canal.

1.2 Visitor Spending

In 1984-85, an estimated 37.2 thousand land based visits were made to Carillon locations while 3.6 thousand boats passed through the locks. Expenditures made in getting to and during the visit at these locations fall primarily into five economic sectors: 1) transportation, 2) accommodation, 3) food and beverages, 4) entertainment and recreation, and 5) other trip costs.

The transportation sector includes all vehicle maintenance services, purchases of goods (including gasoline) and all other modes of transportation used by tourists. In 1984-85, the Carillon Canal visitors spent $11 thousand in this sector. Visitors also spent an estimated $52 thousand on accommodation and an estimated $11 thousand on food and beverages.

The entertainment and recreation sector includes theatre and movies, various types of trips and entertainment and other recreational services. Visitors to Carillon Canal locations spent just over $10 thousand in this sector during 1984-85. The "other trip costs" sector consists of: retail sales, taxis, personal services, car rentals and travel agents. Visitor spending in this sector totalled $9 thousand in 1984-85.[2]

Combining the five expenditure sectors, it was estimated that visitors spent a total of $93 thousand in 1984-85 while visiting the Carillon Canal. Part of this visitor spending (lock permits and licences, etc.) represents revenue to Parks. The amount involved, which totals $6 thousand, must be deducted from the $93 thousand figure if we are to derive the amount of spending that has an impact on the Quebec economy. Visitor spending having an economic impact therefore totals approximately $87 thousand, as illustrated in Figure 1(a). It is assumed here that without the existence of the Carillon Canal, the visitors would not have spent these $93 thousand.

1.3 Final Canadian Demand

The analysis thus far shows that the Carillon Canal has injected a net $310 thousand into the economy and that canal visitors spent an additional $87 thousand. The total estimated final demand in the Canadian economy is therefore $397 thousand. Final demand is defined as the demand which is in fact actually generated in the economy.

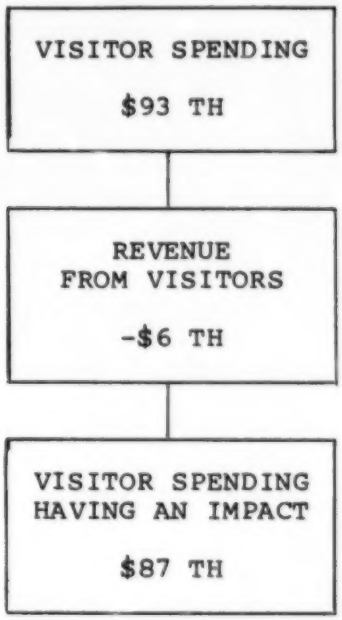
Of this $397 thousand in final demand, the model estimates that $25 thousand are accounted for as goods imported from abroad by visitors and Parks and as indirect taxes. These two components thus represent an outflow from the economy. In fact the Statistics Canada model considers amounts spent on imported goods and government revenue as not being reintroduced into the economy and therefore having no economic impact.

---

2 For further information about the method used to estimate visitor spending: Evaluation of the Impact on the Canadian Economy of Spending Attributable to National Heritage Locations Administered by Parks Canada, Volume II, April 1983.

FIGURE 1(a)

Visitor Spending Having An Economic Impact



Subtracting these two components from the final demand estimate leads to the more restricted concept of final Canadian demand. As one might expect, final Canadian demand refers to the amount remaining within our country's borders and which leads to the production of Canadian goods and services. In 1984-85, final Canadian demand totalled $372 thousand. It is this amount which is used to evaluate the economic impact of the Carillon Canal. Final Canadian demand can be separated into the demand impacting Quebec industries and the demand impacting the industries of other provinces. With $349 thousand in final demand, the province of Quebec takes more than 93% of the final Canadian demand.

Figure 1(b) summarizes the process thus far, while Figure 1(c) illustrates the inferences that may be drawn from final Canadian demand. Each of the elements in Figure 1(c) will be analyzed separately.

FIGURE 1(b)

Final Canadian Demand Attributable To Carillon Canal

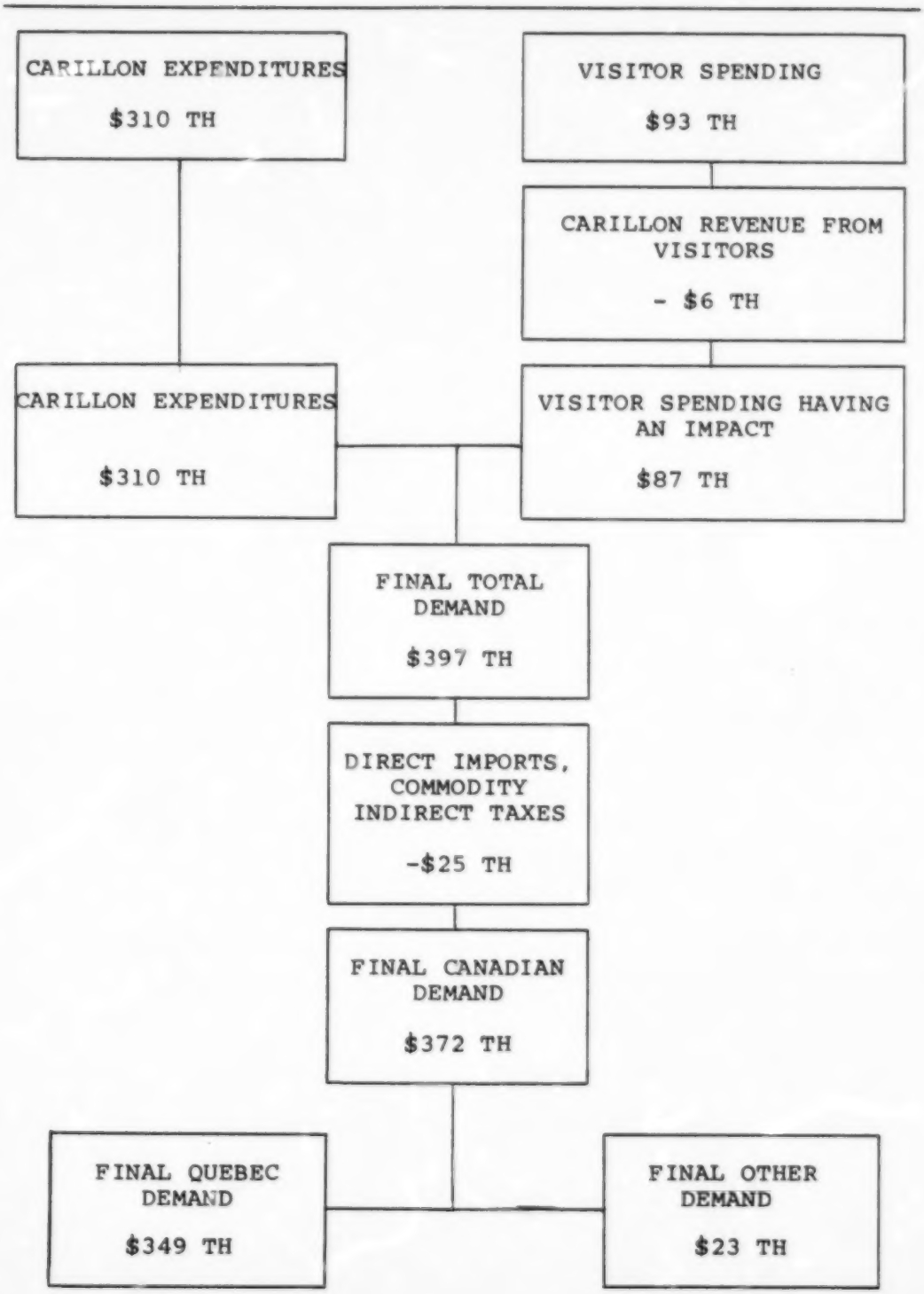


FIGURE 1(c)

Components Involved In Economic Impact Of Carillon Canal

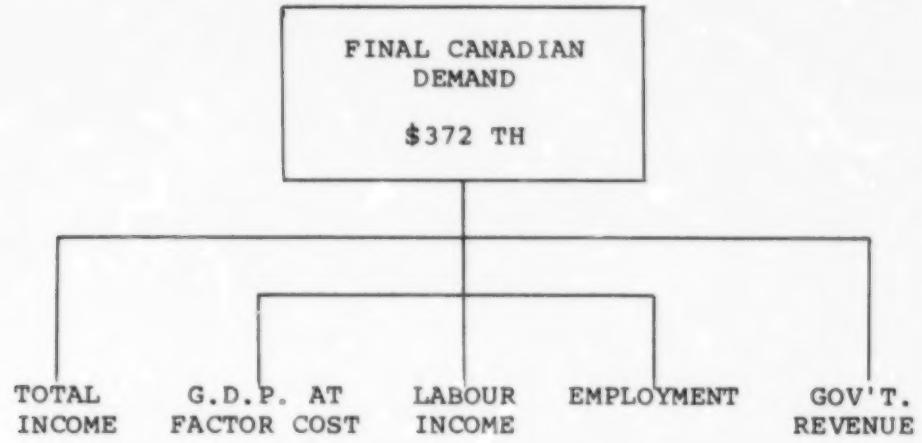


Table 1 depicts the final Canadian demand generated in the economy by industry sector. The primary industry categories include the extraction of natural resources (agriculture, mining, etc.); the secondary sector involves the processing industries (textiles, furniture, machinery, etc.); the construction sector includes all types of construction (buildings, roads, dams, etc.); the tertiary sector consists of service industries (transportation, communications, services to business, etc.).

Table 1 shows the predominance of the household sector in final Canadian demand analysis. In fact, salaries and wages paid by Parks amounted to $168 thousand, or 45% of all domestic demand. The tertiary sector was second most important representing 36% of all final demand with visitor expenditures being mainly responsible for this high demand. The tertiary sector captured 99% of all visitor spending which is not surprising since most businesses involved in the tourism industry are in the tertiary sector. The tertiary sector also captured a significant portion of Parks' spending as the Carillon Canal spent $48 thousand in this sector, or 41% of its industrial demand. Somewhat less important for the Carillon Canal is the $41 thousand of final demand in the construction sector. This demand represents about 35% of the industrial demand of Parks' expenditures. The Carillon Canal was responsible for all of the final domestic demand impacting the construction sector in Table 1.

Table 2 shows the final demand generated in Quebec. Comparison with Table 1 indicates that all construction demand and salaries and wages paid by the canal were in Quebec. Moreover, final demand distribution in Quebec is very similar to the final Canadian demand. This indicates that leakage is very low and that most of every dollar spent in Quebec for the canal (be it by visitors or Parks), remains in Quebec.

TABLE 1

Final Canadian Demand, By Industry Sector

Industry Sector	Carillon $ 000	Visitors $ 000	Total $ 000
Primary	1.0	0.9	1.9
Secondary	27.0	0.1	27.1
Construction	41.1	0.0	41.1
Tertiary	48.0	85.7	133.7
- Transportation & warehousing	1.0	8.7	9.7
- Utilities	15.3	0.1	15.4
- Retail & trade	2.4	8.9	11.3
- Accomodation & restaurants	0.1	57.7	57.8
- Services to business	16.3	0.2	16.5
- Other	12.9	10.1	23.0
Sub-total	**117.1**	**86.7**	**203.8**
Household			
- Salaries and wages paid by Carillon Canal	168.3	-	168.3
TOTAL	**285.4**	**86.7**	**372.1**

TABLE 2

Final Quebec Demand, By Industry Sector

Industry Sector	Carillon $ 000	Visitors $ 000	Total $ 000
Primary	0.6	0.9	1.5
Secondary	17.7	0.1	17.8
Construction	41.1	0.0	41.1
Tertiary	39.3	81.2	120.5
- Transportation & warehousing	0.7	4.2	4.9
- Utilities	14.5	0.1	14.6
- Retail & trade	2.4	8.9	11.3
- Accommodation & restaurants	0.1	57.7	57.8
- Services to business	9.8	0.2	10.0
- Other	11.8	10.1	21.9
Sub-total	**98.7**	**82.2**	**180.9**
Households			
- Salaries and wages paid by Carillon Canal	168.3	-	168.3
Total	**267.0**	**82.2**	**349.2**

CHAPTER II

IMPACT ON INCOME IN QUEBEC

Final domestic demand generates many different types of income. The types of income analyzed in this chapter are labour income, gross domestic product and total income.

2.1 Labour Income

As the name indicates, labour income consists of the total pay earned by wage-earners (i.e. salaries, wages and other supplementary labour income). Table 3 shows the direct, indirect, and induced labour income generated by the final domestic demand of visitors and the Carillon Canal. The total labour income generated amounts to $346 thousand.

Visitor spending generates some $55 thousand in income while canal expenditures generate $291 thousand. Direct labour income was $231 thousand compared to $115 thousand for indirect and induced labour income. This shows that for every dollar of direct income generated by the canal and visitors, 50 cents of indirect and induced labor income are created. Direct labour income consists of the increased labour income resulting from initial spending. Indirect labour income is the labour income generated by the industries supplying the industries stimulated by the initial demand. Induced labour income results from the additional spending households make because of their increased direct and indirect labour income.

2.2 Gross Domestic Product

If the net income of individual businesses and other surpluses[3] are added to labour income, the resulting figure is the gross domestic product at factor cost.

Gross domestic product (GDP) is the value of the net output of intermediary inputs (i.e. the value added to the total goods and services produced). Value added may be measured in terms of market price or factor cost. The GDP at market price indicates the total value added to goods and services. It is equal to the income generated by production and thus

---

3 Corporation profits, dividends paid to persons, capital cost allowance and depletion (mines and other extraction industries).

TABLE 3

Direct, Indirect And Induced Labour Income Generated In Quebec

	Carillon $ 000	Visitors $ 000	Total $ 000
Direct Labour Income	202.4	28.2	230.6
Indirect and Induced Labour Income	88.3	27.0	115.3
Total Labour Income	**290.7**	**55.2**	**345.9**

includes indirect taxes and subsidies. GDP at factor cost is the value added in relation to the factors of production: labour, material used, and capital. This index therefore excludes all indirect taxes. By eliminating the components that add nothing to the value of production and that go directly to government, the GDP at factor cost gives a more accurate picture of value added in the economy.

Table 4 shows the gross domestic product at factor cost generated in the Quebec economy for each industry sector. Thus the $372 thousand in final Canadian demand (Table 1) produced by the Carillon Canal and visitor expenditures generated some $476 thousand in value added to the Quebec economy. In other words, for every dollar in final demand that is attributable to the Carillon Canal, $1.28 of gross domestic product is generated in the Quebec economy. Assuming that visitor spending is attributable to the canal, every dollar spent by Parks for the Carillon Canal increases the value added in the Quebec economy by $1.53.

A close study of Table 4 shows that the tertiary sector, with a GDP of $214 thousand, is the main beneficiary. It should be recalled that most visitor services are in the tertiary sector: restaurants, accommodation, recreational activities, etc. Parks' purchases of professional, financial, transportation and communication services are also very important. The tertiary sector is closely followed by households, with $183 thousand, and the secondary sector, with $47 thousand.

TABLE 4

Gross Domestic Product At Factor Cost Generated In Quebec, By Industry Sector

Industry Sector	Carillon $ 000	Visitors $ 000	Total $ 000
Primary	7.1	3.8	10.9
Secondary	37.6	9.8	47.4
Construction	20.1	0.8	20.9
Tertiary	138.2	76.1	214.3
- Transportation & warehousing	6.5	4.6	11.1
- Utilities	21.7	3.1	24.8
- Retail & trade	28.2	12.5	40.7
- Accommodation & restaurants	10.5	34.0	44.5
- Services to business	11.2	1.5	12.7
- Finance	17.7	5.4	23.1
- Other	42.4	15.0	57.4
Sub-total	**203.0**	**90.5**	**293.5**
Households	180.0	2.5	182.5
- Salaries and wages paid by Carillon Canal	168.3	-	168.3
- Other households G.D.P.	11.7	2.5	14.2
Total	**383.0**	**93.0**	**476.0**

In Table 5, GDP at factor cost is broken down into direct, indirect and induced GDP. This shows that Carillon Canal expenditures had direct repercussions in the order of $227 thousand compared to $45 thousand for visitor spending. Direct GDP consists of the increased income resulting from initial spending. Direct GDP for all spending totals $272 thousand.

Indirect GDP is the portion of value added produced in supplying the industries stimulated by initial demand. In effect, when demand increases in a given industry sector, this sector needs to obtain materials and supplies from other industries. In other words, indirect GDP is the value added in the economy in relation to these supply industries. Induced GDP results from an increase in economic activity due to additional spending by households because of their added income. Table 5 shows that indirect and induced GDP total approximately $204 thousand: $156 thousand of this comes from the Carillon Canal expenditures and $48 thousand from visitor spending.

2.3 Total Income

As explained earlier, GDP at factor cost consists of salaries and wages plus the net earnings of businesses and other surpluses. By adding indirect taxes to the GDP at factor cost figure while subtracting subsidies, we obtain the total income generated. Indirect taxes, which are not considered among income directly associated with the production of goods and services, nevertheless remain one of the types of income generated. Subsidies however are subtracted from the total since they represent public funds and cause a decrease in net government revenues.

Table 6 illustrates the breakdown of total income generated by spending attributable to the Carillon Canal. Parks' expenditures account for more than 80% of the $522 thousand total income generated. Here again, the salaries and wages, as well as the supplementary labour income that is generated by these expenditures are the main reason for the size of the impact. Salaries, wages, and supplementary labour income represent 66% of all income generated by the canal in Quebec. Figure 2(a) illustrates the process used to derive total income from labour income.

TABLE 5

Direct, Indirect And Induced Gross Domestic Product At Factor Cost Generated In Quebec

	Carillon $ 000	Visitors $ 000	Total $ 000
Direct GDP	226.8	44.9	271.7
Indirect and Induced GDP	156.2	48.1	204.3
Total GDP	**383.0**	**93.0**	**476.0**

TABLE 6

Total Income Generated In Quebec

	Carillon $ 000	Visitors $ 000	Total $ 000
Salaries, wages and supplementary labour income	290.7	55.2	345.9
Net income of individual businesses	15.0	9.7	24.7
Other surpluses	77.3	28.1	105.4
Sub-total: GDP at factor cost	**383.0**	**93.0**	**476.0**
Indirect taxes less subsidies	36.7	9.0	45.7
Total	**419.7**	**102.0**	**521.7**

FIGURE 2(a)

Breakdown Of Total Income Generated In Quebec

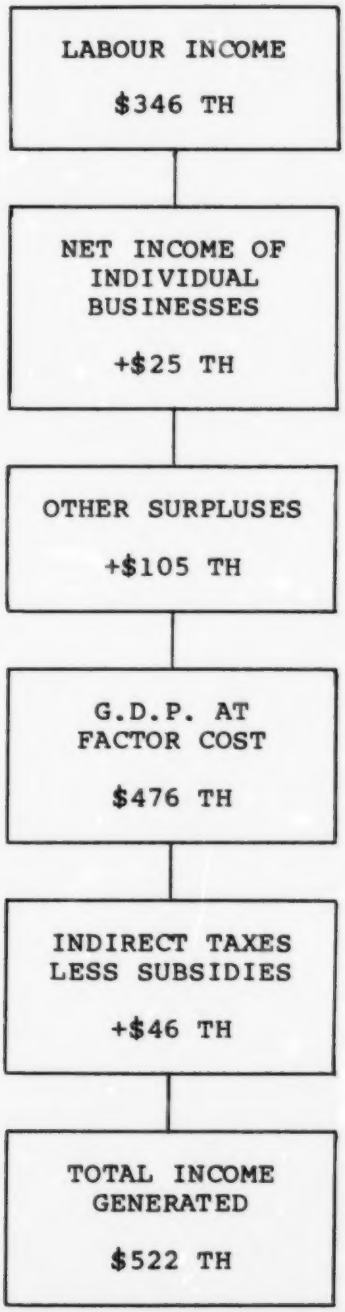
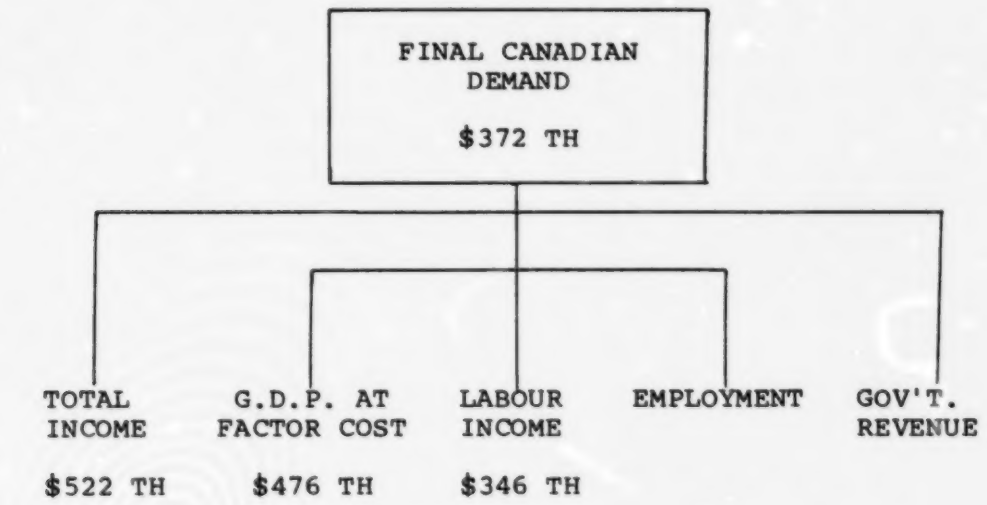


Figure 2(b) summarizes the topics covered thus far.

FIGURE 2(b)

Impact On Income In Quebec



CHAPTER III

IMPACT ON EMPLOYMENT IN QUEBEC

Spending by Parks and canal visitors also generates employment opportunities.

Table 7 shows the impact on employment that results from the final Canadian demand of $372 thousand (Table 1). It shows that the canal and visitors generated some 16.6 person-years of work, including the 8 employees (full-time equivalent) of the canal. Visitors were responsible for the creation of 3.2 and Carillon Canal 13.4 person-years of employment respectively.

Once again, most of the jobs generated (80% excluding Parks employees) were in the tertiary sector (i.e. 6.9 person-years). This finding is not surprising since we already know that income generated in the tertiary sector was important (see Table 4), that the tertiary sector is highly labour-intensive and that visitors concentrate most of their spending on services in this sector.

Spending related to the existence of the Carillon Canal therefore has some positive repercussions on job creation. Table 8 shows the number of direct, indirect and induced jobs, as well as the total jobs created in person-years. Of the 16.6 jobs created, more than 65% are direct when Parks' employees are included.

3.1 Labour Income and Employment Impact

In addition to creating more jobs, Carillon Canal expenditures also give rise to higher paying jobs. Using the figures for labour income generated and number of jobs created, the annual average salary paid for a job created by visitor spending was an estimated $17,300. The corresponding figure for jobs created by the canal's expenditures was $21,700. The combination of visitor and Carillon Canal spending creates a total of 16.6 jobs at an annual average salary of $20,800. Since it is assumed that visitor spending results from the existence of the Carillon Canal, it could be said that the Carillon Canal creates one person-year of employment for every $18,700 worth of Parks' expenditures.

TABLE 7

Person-Years Generated In Quebec By Industry Sector

Industry Sector	Carillon	Visitors	Total
Primary	0.1	0.1	0.2
Secondary	1.0	0.1	1.1
Construction	0.4	0.0	0.4
Tertiary	3.9	3.0	6.9
- Transportation & warehousing	0.1	0.1	0.2
- Communications	0.3	0.1	0.4
- Retail & trade	1.1	0.5	1.6
- Accommodation & restaurants	0.5	1.6	2.1
- Services to business	0.4	0.1	0.5
- Other	1.5	0.6	2.1
Sub-total	**5.4**	**3.2**	**8.6**
Carillon Canal P.-Y.	8.0	-	8.0
Total	**13.4**	**3.2**	**16.6**

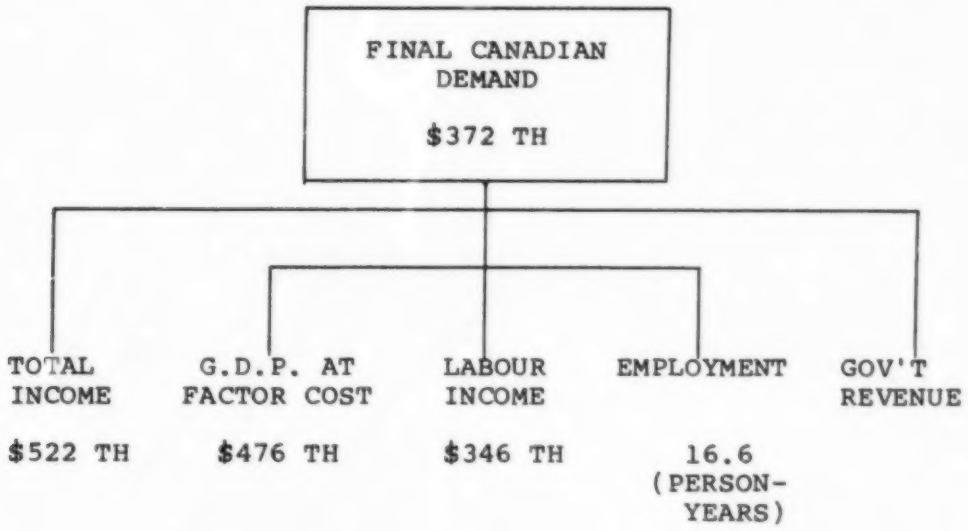
TABLE 8

Number Of Direct, Indirect And Induced Person-Years Generated In Quebec

	Carillon	Visitors	Total
Direct	9.2	2.0	11.2
Indirect and Induced	4.2	1.2	5.4
Total	**13.4**	**3.2**	**16.6**

FIGURE 3(a)

Impact On Income And Employment In Quebec



CHAPTER IV

IMPACT ON GOVERNMENT REVENUE

Expenditures made by Parks and canal visitors also generates revenue for governments. Table 9 shows the government revenue generated by these expenditures. It shows clearly that the repartition of the impact by type of revenue is relatively similar no matter where the spending originates (visitors or Carillon Canal). Of the $310 thousand in Parks' canal expenditures and the $93 thousand in visitor spending, a total of $171 thousand returns to various levels of government in Quebec. All direct and indirect taxes represent more than 95% of government revenue or $166 thousand. Out of each dollar spent by Parks on the Carillon Canal, governments recover 55 cents in Quebec. Another $49 thousand in government revenue is collected in the other provinces. As a whole, government revenue totals $220 thousand in Canada.

Based on the National Income Accounts and the Quebec Economic Accounts[4], it can be estimated that the federal government's share of the tax revenue ($215 thousand) is $63 thousand over and above the $6 thousand collected directly through lockage permits, etc. Subtracting these sources of revenue, the Carillon Canal costs the federal treasury $310 thousand minus ($63 thousand + $6 thousand) = $241 thousand in 1984-85.

Based on the Quebec Provincial Economic Accounts we can assume that of the tax revenue generated in Quebec ($166 thousand in Table 9) the Quebec provincial government's share is $70 thousand.

---

4 Statistics Canada, "Provincial Economic Accounts", Catalogue 13-213.

Statistics Canada, "National Income And Expenditure Accounts", Catalogue 13-201.

TABLE 9

Government Revenue Generated

In Quebec	Carillon $ 000	Visitors $ 000	Total $ 000
Direct taxes*	98.2	21.7	119.9
Commodity indirect taxes	29.0	6.4	35.4
Government goods and services	1.2	0.3	1.5
Non-commodity indirect taxes	13.3	5.1	18.4
Minus subsidies	-6.8	-2.8	-9.6
Sub-total	**134.9**	**30.7**	**165.6**
Revenue from Carillon lockage permits and licences	-	5.5	5.5
Total	**134.9**	**36.2**	**171.1**
In other provinces			
Direct taxes*	25.5	8.2	33.7
Other taxes less subsidies	11.7	3.8	15.5
Total	**37.2**	**12.0**	**49.2**
Total revenue generated in Canada	**172.1**	**48.2**	**220.3**

*Estimated at Parks

FIGURE 4(a)

Sources Of Government Revenue

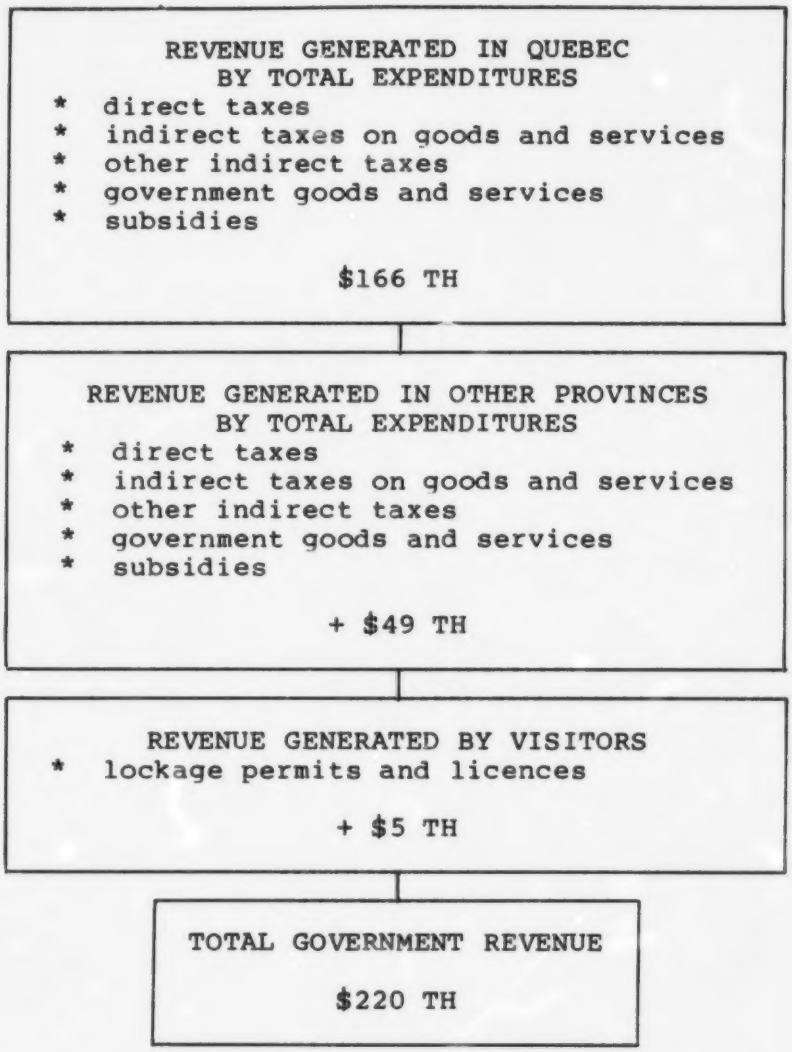
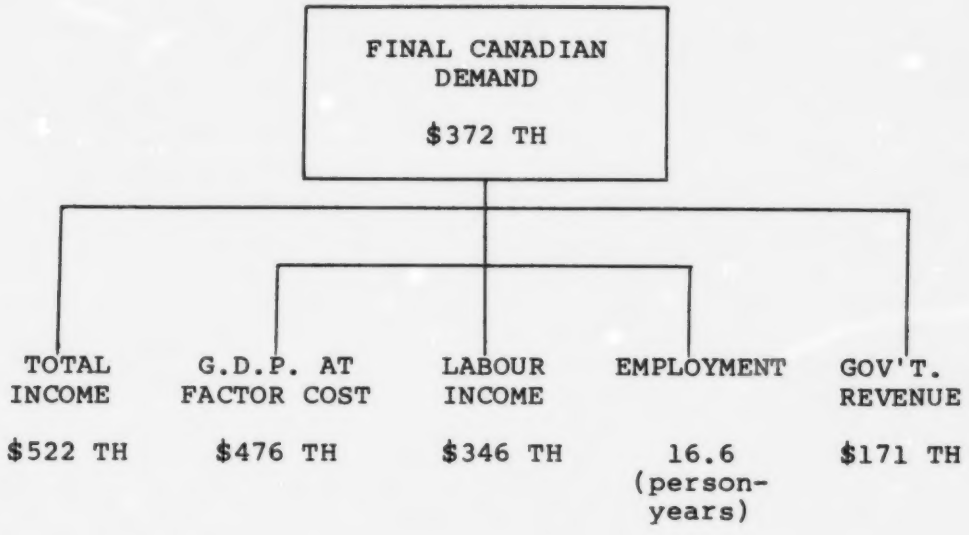


FIGURE 4(b)

Impact On Income, Employment And Government Revenue In Quebec



CONCLUSION

Although the primary objective of operating the Carillon Canal is the preservation of this historic national canal for the benefit and enjoyment of present and future generations, this report demonstrates that spending attributable to the canal facilities has a significant impact on the Quebec economy. In fact, whether for gross domestic product, labour income, job creation, or government revenues, the economic repercussions of the canal are significant.

Because the figures given in this report are simulation results, some factors that are difficult to take into account are omitted. These include volunteer work, unpaid work, market imperfections and capacity limitations. One must not lose sight of the fact that the figures should be viewed as approximate rather than absolute.

It should be recognized that the economic impact assessment does not include expenditures made by the private sector to construct facilities used to service visitors. Similarly, expenditures made by the visitors on recreation equipment used during their visit to the canal are not accounted for. Expenditures of other government departments not included in the canal's budget such as for the Department of Public Works are likewise not included in the assessment. Finally, the report does not examine "primary" economic benefits such as the value visitors place on the opportunity to use the canal as a recreation resource.

A number of socio-economic questions are also avoided in this study. Structural changes arising in a given region around the canal are not considered. Are the jobs created seasonal or permanent? Do they improve the quality of life? Is there a spill-over effect on local entrepreneurship? Questions such as these are all socio-economic considerations that have been omitted from this study. The results included in this report have been analyzed strictly from an economic standpoint, which calls for a factual description of the impact of spending attributable to the Carillon Canal.